

## **SYSTEM AND METHOD FOR PROVIDING MULTI-BEAM SCHEDULING**

### **ABSTRACT OF THE DISCLOSURE**

5           Embodiments of the present invention relate to communication systems. Such communication systems may include a beamformer that is adapted to provide a plurality of beams, each of the plurality of beams providing communication for a corresponding coverage envelope, the plurality of coverage envelopes comprising at least one pair of overlapping coverage envelopes and at least one pair of non-  
10       overlapping coverage envelopes, and a scheduler that assigns system resources from a group of shared system resources to a plurality of receivers distributed throughout the coverage envelopes, the scheduler being adapted to assign the same system resources from the group of shared system resources for use during a simultaneous data transmission to a receiver in each of the coverage envelopes that comprises the at least  
15       one pair of non-overlapping coverage envelopes.